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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,225	12/06/2000	Weidong Mao	CC/APP10US	1852

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EXAMINER	
USTARIS, JOSEPH G	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/731,225	MAO ET AL.	
	Examiner	Art Unit	
	Joseph G. Ustaris	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-6,10-12 and 16-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-6, 10-12, and 16-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 28 February 2006 in application 09/731,225. Claims 4-6, 10-12, and 16-23 are pending. Claims 4, 5, 10, 11, 16, 17, and 19-22 are amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-6, 10-12, and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goffin, II (US006918135B1) in view of Addington (US006928656B) and Banker et al. (US005497187A).

Regarding claim 4, Goffin, II (Goffin) discloses a "digital video television communication system having a headend coupled to a two-way communication medium and at least one digital video settop box coupled to the two-way communications medium" (See Figs. 1 and 2; column 2 line 66 – column 3 line 12). The headend transmits a "plurality of communication channels" (See Fig. 1) including "first and second in-band channels" (See Fig. 1, channels 32) and an "out-of-band (OOB) region having at least one out-of-band (OOB) communication channel" (See Fig. 1, channels 33; column 5 lines 10-17). Each of the "in-band channels" or "first and second in-band

channels" has a "first and second plurality of multiplexed digital video channels" (See column 3 lines 27-39). The system "sends a channel change request from the settop box to the headend" where the request represents "a channel change at the settop box from one of the multiplexed digital video channels in the first in-band video channel to one of the multiplexed digital video channels in the second in-band video channel" (See Fig. 7b, 704; column 6 lines 8-30). The headend then "sends a channel resource confirmation message to the settop box" (See Fig. 7b, 712), where inherently the message "identifies the selected communications channel" in order for the settop box to successfully tune to the correct in-band channel 32 or out-of-band channel 33 (See column 4 line 62 – column 5 line 17). The settop box then "selects the selected communication channel for receiving data from the headend" (See Fig. 7b, 716). However, Goffin does not explicitly disclose (1) that the "in-band channels can transport IP data, wherein the multiplexed digital video channels in the first in-band video channel are associated with an IP connection", (2) "the channel resource request for changing the IP connection association from one of the multiplexed digital video channels in the first in-band video channel to one of the multiplexed digital video channels in the second in-band video channel", and (3) "determining whether the second in-band video channel has an available communication channel" and "selecting the second video channel if the second video channel has an available communications channel...and selecting a OOB channel...if second communication channel does not have an available communication channel".

(1) Addington discloses a system that provides an IP connection to the users by delivering IP data over audio/video MPEG transports streams, where inherently MPEG data packets are identified by "packet ID (PID)" (See Figs. 1 and 2). Addington discloses that the IP data can be delivered to the subscriber's terminal using in-band or OOB channels (See column 4 lines 17-49 and column 6 lines 5-20). Furthermore, "one of the multiplexed digital video channels in said first in-band video channel is associated with an IP connection" (See column 4 lines 17-49). (2) Also, Addington discloses "a channel resource request for changing the IP connection association from one of the multiplexed digital video channels in the first in-band video channel to one of the multiplexed digital video channels in the second in-band video channel" (See column 4 lines 40-49 and column 6 lines 55-61). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend and channel resource request disclosed by Goffin to provide an IP connection by transporting IP data over MPEG data packets, wherein the multiplexed digital video channels in the first in-band video channel are associated with the IP connection, or using the OOB channels and to have the channel resource request change the IP connection association from one of the multiplexed digital video channels in the first in-band video channel to one of the multiplexed digital video channels in the second in-band video channel, as taught by Addington, in order to provide a low cost and efficient means of communicating IP data to the set-top terminal or "set-top box" by using a well known and established MPEG standard and reducing the amount of tuners need at the set-top terminal (See column 4 lines 17-49).

(3) Banker et al. (Banker) discloses an in-band/out-of-band data transmission method for a television system. The system utilizes both the in-band and out-of-band (OOB) to transport data to the terminals or set-top terminals. The system first determines if the load of the out-going in-band channels is great or not or "determining whether a second video channel has an available communication channel". Inherently, the system selects an in-band channel if the load isn't great or "selecting the second video channel if second video channel has an available communications channel", otherwise the system selects an OOB channel to transmit the data to the terminal or "selecting a OOB channel...if second communication channel does not have an available communication channel" (See column 8 lines 3-20). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend disclosed by Goffin to "determine whether the second video channel has an available communication channel" and "selecting the second video channel if second video channel has an available communications channel...and selecting a OOB channel...if second communication channel does not have an available communication channel", as taught by Banker, in order to provide a more expedient mode of transmission.

Regarding claim 5, the "selected communication channel" is identified within a confirmation message or "channel resource confirmation message" that is within a MPEG packet as taught by Addington, where inherently a packet ID (PID) would describe the contents of the MPEG packet (See claim 4 above).

Regarding claim 6, Goffin discloses the use of "an out-of-band region having at least one out-of-band communication channel" (See claim 4 above). Furthermore, Banker discloses a method that utilizes both the in-band and out-of-band to transport data to the terminals or set-top terminals or "selected communication channel...is and OOB channel". Inherently, when an OOB transmission method is used it is "identified in the channel resource confirmation message" as discussed in claim 4 above.

Claim 10 contains the limitations of claim 4 (wherein the system includes a headend) and is analyzed as previously discussed with respect to that claim.

Claim 11 contains the limitations of claims 5 and 10 and is analyzed as previously discussed with respect to those claims.

Claim 12 contains the limitations of claims 6 and 10 and is analyzed as previously discussed with respect to those claims.

Claim 16 contains the limitations of claim 4 (wherein the system includes a settop terminal) and is analyzed as previously discussed with respect to that claim.

Claim 17 contains the limitations of claims 5 and 16 and is analyzed as previously discussed with respect to those claims.

Claim 18 contains the limitations of claims 6 and 16 and is analyzed as previously discussed with respect to those claims.

Claim 19 contains the limitations of claim 4 (where inherently the headend and settop terminal each have a "transmitter" and "receiver") and is analyzed as previously discussed with respect to that claim.

Claim 20 contains the limitations of claims 4, 10, and 19 and is analyzed as previously discussed with respect to those claims.

Claim 21 contains the limitations of claims 4, 10, and 19 and is analyzed as previously discussed with respect to those claims.

Claim 22 contains the limitations of claims 5 and 21 and is analyzed as previously discussed with respect to those claims.

Claim 23 contains the limitations of claims 6 and 21 and is analyzed as previously discussed with respect to those claims.

Response to Arguments

3. Applicant's arguments with respect to claims 4-6, 10-12, and 16-23 have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, Applicant also argues with respect to Banker that the out-of-band transmission is not used when there is insufficient capacity in the in-band channel for transporting data. However, reading the independent claims in the broadest sense, Banker does meet the limitations of the claim. Banker states that the system can use an out-of-band transmission if an in-band data transmission is not available (e.g. the queue is too great or full) or "determining whether the second in-band video channel has an available communication channel" (See Banker column 8 lines 3-25).

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The examiner suggests that applicants consider providing more details in the independent claims about how the system determines if a channel is available (e.g. having sufficient or insufficient capacity) as supported in the applicant's specifications.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGU
April 19, 2006

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